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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,136	03/03/2005	Picerrick Girard	3952-76	2442
23117	7590	08/10/2007		
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER PALO, FRANCIS T	
			ART UNIT 3644	PAPER NUMBER
			MAIL DATE 08/10/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,136	Applicant(s) GIRARD ET AL.	
	Examiner Francis T. Palo	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-46 is/are pending in the application.
- 4a) Of the above claim(s) 23,34,36-38,41-43 and 46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-22,24-33,35,39,40,44 and 45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/10/05, 2/11/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's **election** without traverse of claims **19-33, 35, 39-40** and **44-45** in the reply filed on 4/27/07 is acknowledged.

Claims 34, 36-38, 41-43 and **46** are **withdrawn** from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

Election was made without traverse in the reply filed on 4/27/07.

Claim Rejections - 35 USC § 112

Claim-19 and those depending therefrom are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "support" as recited in the claims is unclear and applicant is urged to utilize a more conventional structural descriptive such as a "web" or some other structural language to describe the invention.

Claim-29 recites the limitation "fixing points"; there is insufficient antecedent basis for this limitation in the claim.

Claim Objections

Claim-23 appears to be directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The formulation lists mix materials, which have been deleted from the parent composition as recited in claim-19, and therefore could be viewed as an additional coating species not originally presented for election.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, **claim-23 is withdrawn from consideration** as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

The drawings are objected to under 37 CFR 1.83(a).

The drawings must show every feature of the invention specified in the claims. Therefore, the “**fixing points** of the support”, as recited in **claim-29** and a “**grid**” or grids “**associated with at least a part of the support**” as recited in **claim-26** and the **grid “associated”** as recited in claim-40, must be shown (to facilitate an understanding of the relationship of the grid) or the feature(s) canceled from the claim(s).

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19-25, 32, 33, 35 and 39 are rejected under 35 U.S.C. 102(b),
as anticipated by or, in the alternative, under 35 U.S.C. 103(a),
as obvious over **Weber** (EP454104A1) 1991.

Regarding independent claim-19:

Weber '104 teaches saturation of a fibrous web, the web made from cellulose fibers or optionally synthetic fibers (for improved tear strength) or a mixture thereof, and the saturant being a latex composition (abstract); to yield a biodegradable mulch (page-2, line-54).

Specifically, Weber teaches a biodegradable fibrous support for soil mulching comprising a coating of biodegradable natural latex ('a latex composition which may be natural, synthetic or a combination of natural and synthetic polymers'; page-3, line-9 thereabout).

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Weber further teaches, 'in addition to latex, other **soluble** polymers and additives may be incorporated into the saturant (read as a coating of an aqueous solution, as claimed) for special end use properties' (page-3, line-10 thereafter); stabilizing and preservative agents as claimed, are considered to be readable as "additives for special end use properties" as taught by Weber, and further, Weber teaches "protein" as an additive which applicant claims as a preservative agent.

Weber teaches a biodegradable mulch as well as a mulchable and compostable material, which is capable of soil mulching during long-term growing periods as claimed; as depending on the decomposition rate, even if the material were to break down before 36-months in the field as claimed, the material would then be serving as a mulching/compostable material, which could still benefit the specific planting application or intended use by amending the soil up to a 36-month use requirement.

Weber teaches '16-80 dry parts saturant per 100 parts fiber by weight' (abstract), which the examiner considers to encompass the claimed latex use range, and as the latex and additives is described as a saturant, the saturant of Weber would be capable of the use amount recited in the instant claim.

Regarding **claims 20 and 21**:

The discussion above regarding claim-19 is relied upon.

As discussed above, Weber teaches a biodegradable fibrous support for soil mulching comprising a coating of biodegradable **natural latex** ('a latex composition which may be natural, synthetic or a combination of natural and synthetic polymers'; page-3, line-9 thereabout); this teaching is read as encompassing the latex of the instant claims.

Regarding **claim-22**:

The discussion above regarding claim-19 is relied upon.

As discussed above, Weber teaches, 'in addition to latex, other **soluble** polymers and **additives** may be incorporated into the saturant (read as a coating of an aqueous solution, as claimed) **for special end use properties**' (page-3, line-10 thereafter); stabilizing and preservative agents as claimed, are considered to be readable as "additives for special end use properties" as taught by Weber, and further, Weber teaches "**protein**" as an additive which applicant claims as a preservative agent, clay and other inert fillers are taught by Weber as well.

Regarding claims 24, 25 and 39:

The discussion above regarding claim-19 is relied upon.

Weber teaches a biodegradable latex-treated cellulose web wherein the web can contain natural and/or synthetic fibers (abstract), but does not specifically mention thermo-bonding polylactic acid (PLA) fibers as claimed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made, to have substituted a synthetic polymer such as derived from PLA for the cellulose base material of Weber as claimed, as Weber teaches synthetic fiber can be utilized for the web material, and it is well known to use PLA derived polymers for plant protection and for mulching applications (see Ehret US 5,783,504) as these PLA materials are utilized for their biodegradable characteristics, and further, such modification is merely an alternate functionally equivalent mulching material performing the same intended function of providing biodegradability characteristics.

And in view of the guidance provided by the Supreme Court in *KSR*; all the claimed elements were known in the prior art (that is, the use of PLA derived materials for use such as for mulching, especially for their biodegradability, and the teaching of substituting synthetic fibers for natural fibers suitable for use as a fibrous web mulching material), and one skilled in the art could have combined the elements in the weight ranges as claimed by known methods with no change in their respective functions (biodegradability and improved tear strength), and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Regarding claims 32 and 33:

The discussion above regarding claim-19 is relied upon.

Weber while teaching a natural fiber web (support) saturated with a latex solution is silent as to the use of a hydrophobic resin and carbon black in the support, as claimed.

Applicant discloses the use of epichlorhydrin resin with a combination of deciduous and coniferous fibers (WO 01/25536) in a mulching product as admitted prior art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added a hydrophobic resin as claimed and as taught by applicant, to the cellulosic web (or support as claimed) of Weber for the known advantages of that feature, specifically, to extend the useful life of the biodegradable web or support.

Likewise, it would have been obvious to incorporate carbon black as claimed, for the known advantages of that feature.

Furthermore, one skilled in the art could have combined the elements claimed by known methods with no change in their respective functions (stable binder), and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Regarding **claim-35**:

The discussion above regarding claim-19 is relied upon.

Weber teaches a web (support) of natural cellulosic wood pulps referred to as a soft wood kraft pulp, of which the recitation of annual and coniferous fibers as claimed, would be encompassed by the teaching, as annual and coniferous materials as claimed, are considered as soft wood.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26-31, 40, 44 and 45 are rejected under 35 U.S.C. 103(a),
as being unpatentable over **Weber '104** as applied to claim-19 above,
and further in view of **Anton** (SI 9600317 A2) 1998.

Regarding **claims 26 and 27**:

The discussion above regarding claim-19 is relied upon.

Weber is silent as to a grid associated with at least part of the web or support as claimed.

Anton '317 teaches a soil mulch or support having a textile (threads as claimed) or net cover (grid) that can be placed on one or two sides of the support (see abstract and figure-1), and as both Weber and Anton teach supports or webs of organic fiber for soil mulching; it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Weber to include a cover as taught by Anton for the known advantages as taught by Anton, specifically to strengthen the web or support.

Further, Anton (in the absence of a translation) teaches a textile or net made of jute as the cover, and as jute is utilized to make twine and jute twine is an equivalent to viscose as claimed (viscose read to encompass treated cellulose), then it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have modified Weber to include a cover made of viscose as further such modification is merely an alternate functionally equivalent organic material performing the same intended function of a biodegradable and strengthening layer material.

Regarding **claims 28 and 44**:

The discussion above regarding claim-26 is relied upon.

Weber as modified, is silent as to the weight of the grid as claimed (in the absence of a translation of Anton).

In view of the guidance provided by the Supreme Court in *KSR*, the claim would have been obvious (that is, the weight range of the grid as claimed) because, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp to arrive at a grid weight for strengthening purposes, that would result in the weight range as claimed, and if this leads to the anticipated success, it is likely the product not of innovation, but of ordinary skill and common sense.

Regarding **claims 29, 31 and 40**:

The discussion above regarding claim-26 is relied upon.

The grid (cover) of Weber as modified by Anton as depicted in figure-1 of Anton, is readable as, 'positioned on the fixing points of the support' and as 'positioned directly on the fibrous support', and as associated with at least a part of at least one support face of the support, as claimed.

Regarding claims 30 and 45:

The discussion above regarding claim-26 is relied upon.

Weber as modified teaches a needled grid or cover which is further spattered with latex, celluloid glue or another suitable binder, which is readable on the grid being glued directly on the surface of the fibrous support, and further, the glues recited in the claim are readable on other suitable binders as taught by Anton in the abstract.

Further, In view of the guidance provided by the Supreme Court in *KSR*; the claim would have been obvious (that is, the weight of the glue as claimed) because, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp to arrive at a glue weight for adhesive and strengthening purposes, that would result in the weight as claimed, and if this leads to the anticipated success, it is likely the product not of innovation, but of ordinary skill and common sense.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francis T. Palo whose telephone number is 571-272-6907. The examiner can normally be reached on M-Tu.,Th.-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Francis T. Palo

Francis T. Palo
Primary Examiner
Art Unit 3644